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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/932,644	08/17/2001	Jeffrey Jay Jacobsen	03424.P017	6318

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EXAMINER

RAO, SHRINIVAS H

ART UNIT PAPER NUMBER

2814

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/932,644

Applicant(s)

JACOBSEN, JEFFREY JAY

Examiner

Steven H. Rao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-23,27 and 29-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 15-23,27 and 29-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Acknowledgement is made of papers filed on August 17, 2001 claiming priority from U.S. Serial No. 09/932,644 filed on August 17, 2001.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on Jan. 03, 2006 has been entered.

Therefore claims 15-16, 18-19-22, 27, 29 as amended by the amendment of Jan. 03, 2006 and claims 23 and 30-31 as previously recited are currently pending in the Application.

Claims 1-14, 17, 24-26 and 28 have been cancelled.

Information Disclosure Statement

No further IDS has been filed after the one filed on November 10, 2004.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

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Patentability shall not be negated by the manner in which the invention was made.

Claim 15-16, 18-21,23,27,29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duthaler et al. (U.S. Patent No. 6,312,304 , herein after Duthaler) in view of Falls et al (WO Patent No. 97/05556, herein after Falls) and further in view of Smith (U.S. Patent NO. 5,545,291 herein after Smith also cited by Applicants' in their specification).

With respect to claim 15 Duthaler describes a method of manufacturing a flexible display (Duthaler col.2 lines 24-27) comprising; depositing a plurality of shaped blocks (Duthaler col. 2 lines 24-27-capsule) , each having an active circuit for a display driver(fig.2 24, col.4 line2, fig. 4 A and 4 B 22, 26 for each capsule, col. 4 line 43 to col. 5 line 10) .

Duthaler does not specific ally describe its flexible strip as having flexible substrate having a plurality of recessed regions configured to receive said plurality of shaped blocks therein .

However Smith , a patent from the same filed of endeavor describes in figures 1-156 etc, and col. 5 line: 14-35 etc. describes having a plurality of recessed regions configured to receive said plurality of shaped blocks therein to provide a method of assembling a microstructure on to a substrate that is compact, low cost, efficient, reliable and requires little maintenance.

Therefore it would have been obvious to one of ordinary skill in the art a the time of the invention to include Smith's a plurality of recessed regions configured to receive

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said plurality of shaped blocks In Duthaler's method , the motivation to include the above substitution is therein to provide a method of assembling a microstructure on to a substrate that is compact, low cost, efficient, reliable and requires little maintenance.

(This feature is also well known in the art e.g. Applicants' admitted prior art figs. 1A to 2).

The other limitations of claim 15 are :

at least one of each of said shaped blocks comprising ((a)) an active circuit element for driving a picture element (fig.2 24, col.4 line2, fig. 4 A and 4 B 22, 26 for each capsule, col. 4 line 43 to col. 5 line 10) .

Duthaler and Smith doe not specifically describe coupling a receiver to the plurality of shaped blocks on the flexible web substrate.

However Falls in figure figures 1,6,7 and pages 27 lines 7 to 12 describes the coupling of a receiver to the plurality of shaped blocks on the flexible layer to automate real-time information display, dynamic printed information display an shelf-space management .

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include Fall's receiver coupled to the plurality of blocks on the flexible layer to automate real-time information display, dynamic printed information display an shelf-space management. (Falls page 9 lines 18-27).

The remaining limitations of claim 15 are :

the receiver transmitting signals to the said shaped blocks to cause each the active circuit element of at least one of said shaped blocks to drive the picture element (

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Duthaler col. 4 lines 12-29, fig. 8a to 11 # 136,142, col. 7 lines 8 to 37, Falls figs. 1,6 and 7, page 10 lines 15-20); wherein at least a portion of said flexible web substrate having said plurality of blocks deposited therein forms a backplane for said flexible display (Duthaler figure 8a, col. 7 lines 8 to 53) and coupling a display panel to said backplane to form said flexible display. (Duthaler fig. 6B, col. 5 lines 22 to line 35) .

With respect to claim 16 Duthaler describes the method of claim 15, wherein said flexible display conforms to a desired shape of an object when said flexible display is attached to said object. (Falls page 1 lines 3 to 34).

With respect to claim 17 Duthaler describes the method of claim 15, wherein each of said shaped blocks comprises an active circuit element which drives a picture element. (Falls, figs. 16 and 7, page 10 lines 15-20).

With respect to claim 18 Duthaler describes the method of claim 15, further comprising: coupling a display generation substrate to said flexible web substrate. (Falls fig. 13, page 58 lines 6 to 29).

With respect to claim 19 Duthaler describes the method of claim 15, wherein said flexible display comprises an active matrix display backplane which comprises at least one electrode for each picture element. (Duthaler figure 8a, col. 7 lines 8 to 53).

With respect to claim 20 Duthaler describes the method of claim 15, wherein said flexible display is conformal. (falls page 27 lines 17 to 20- similar to Applicants' definition in their specification page 5 section (0017)).

With respect to claim 21 Duthaler describes the method of claim 15, wherein the flexible display has an organic light emitting diode.(Duthaler col. 8 line 44).

With respect to claim 22 describes the method of claim 15, wherein the flexible display comprises upconverting phosphor.

With respect to claim 23 Duthaler describes the method of claim 15, wherein the receiver is a RF wireless transponder receiver. (Falls page 3 lines 17 to 19).

With respect to claim 27 Duthaler describes a method of manufacturing a flexible display panel. the method comprises depositing a plurality of blocks, each having an active circuitry for a display driver. onto a web material defined by a length 50 times greater than its width, each of said blocks comprises an electronic device for driving a picture element; and coupling a receiver to the plurality of blocks on the web material. (Duthaler col.2 lines 27-45, Falls figs. 16 and 7, etc.) .

With respect to claim 29 Duthaler describes the method of claim 15 wherein said coupling a receiver to the plurality of blocks on the web material further comprises depositing said receiver onto said web material . (Duthaler col.3 line 49, col. 4 lines 34-36).

With respect to claim 30 Duthaler describes the method of claim 29 wherein said receiver causes information on said flexible display panel to change. (Duthaler col. 7 lines 18 to 36).

With respect to claim 31 Duthaler describes the method of claim 15 wherein each of said shaped block comprises single crystal silicon. (FTES, capacitors as stated in Applicants' specification well know –See wolf text book).

B. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Duthaler et al. (U.S. Patent No. 6,312, 304, herein after Duthaler), Falls S et al. (WO. Patent No. 97/05556, herein after Falls) and Smith (U.S. Patent No. 5,545,291, herein after Smith) as applied to claims 15-21 , etc. and further in view of Bischel et al. (U.S. Patent No. 5,664,032 herein after Bischel).

With respect to claim 22, Duthaler describes The method of claim 15.

Duthaler and Falls do not specifically mention the flexible display panel as comprising up converting phosphor.

However Bischel in col. 94 lines 5-10 describes up converting phosphor to radiate desired display color by channeling light through particular wavelength by waveguides and thus eliminate the need for a separate diffusing screen.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include Bischel's up converting phosphor in Duthaler and Falls 's method to radiate desired display color by channeling light through particular wavelength by wave guides and thus eliminate the need for a separate diffusing screen. (Bischel col. 94 lines 8-10).

Response to Arguments

Applicant's arguments filed on Jan 03, 2006 have been fully considered but they are not persuasive for the following reasons :

Applicants' argument that the applied Duthaler in combination with Falls and Smith do not describe/suggest the limitations (shaped blocks) " each having an active circuitry " for display driver" and (the receiver) " transmitting signals to the said (sic.)

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shaped blocks (to cause) “ the active circuit element of at least one “ “ wherein at least a portion of said flexible web substrate having said plurality of blocks deposited therein forms a backplane for said flexible display” is not persuasive because as shown above in the rejections and incorporated here by reference these limitations are taught by the applied references .

Applicants' next contention that Duthaler's microcapsules are part of display media, its substrate does not include blocks with other circuit elements and therefore is not a active circuit element is not persuasive because the applied Duthealier elements include a Liquid crystal display (e.g. Duthaler page 7 lines 29-36, etc.) is similar to the active circuit element described in Applicants' specification page 12 last 5 lines describing fig. 6c including LEDS, photo cells,e tc.) . Therefore Duthaler describes active circuit elements.

Applicants' contention on page 8 is not persuasive because Applicants' analysis is based on imperrimissable piece meal analysis of individual references , whereas the rejection is based on combined teaching s of the references.

Applicants' other contentions are essentially a repat of the aboveand therefore are not persuasive.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven H. Rao whose telephone number is (571)272-1718. The examiner can normally be reached on 8.00 to 5.00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fahmy Wael can be reached on (571) 272-1714. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven H. Rao

Patent Examiner

March 06, 2006.



LONG PHAM
PRIMARY EXAMINER